Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_

**Pre-AP Biology: Unit 2, DBA #4 Review**

Ms. OK, 2014-2015

**Objectives Assessed:** Topic 4 (Enzymes), Learning Targets M-O

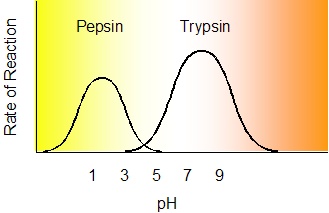
***Practice Questions:*** *Answer the following questions thoroughly and accurately in preparation for your Daily Biology Assessment.*

1. An enzyme is a specific type of which macromolecule?

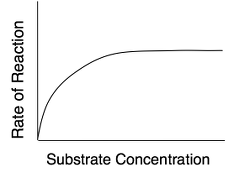
2. Explain why an enzyme and substrate are often thought of as a lock and key. Use the term “active site” in your response.

3. Why is the rate of an enzyme-assisted reaction slower at lower temperatures?

4. Why is the rate of an enzyme-assisted reaction slower at extremely high temperatures?



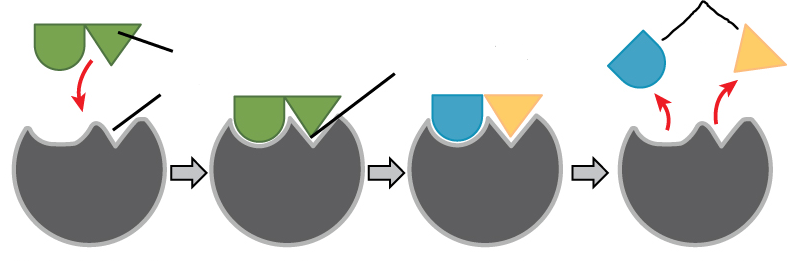
5. Explain how the graph given to the right provides support for the following statement: “Each enzyme functions best at a different optimal pH.”



6. Explain why the rate of reaction eventually plateaus (aka stabilizes) in the graph to the right.

7. What are two ways in which you could measure the rate of reaction?

8. Label the enzyme, products, substrate, enzyme-substrate complex, and active site on the picture given below.



9. Define activation energy. Describe how the activation energy of a reaction is changed in the presence of an enzyme (see graphs below).

